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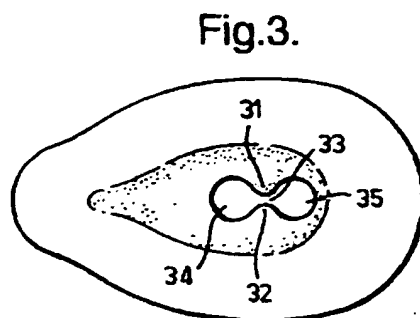
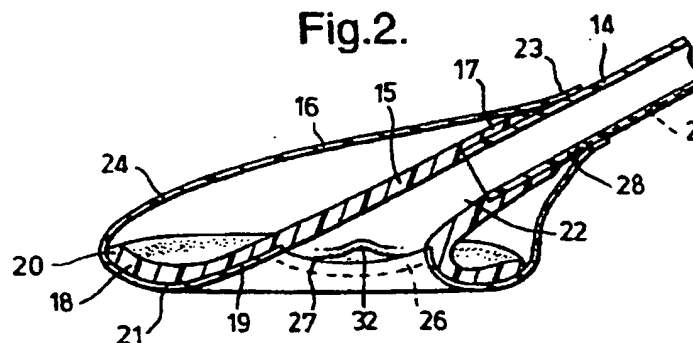
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**GB 2205499 A WO 97/12641 A1**

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(54) Abstract Title  
**Laryngeal mask assembly**

(57) A laryngeal mask assembly has a tube with a mask portion at its patient end, the tube opening into the centre of the mask portion. The mask portion is formed by a mount 15 attached to the tubes and by a bag-shape cuff 16 attached to the mount. The mount 15 is formed with two laterally-projecting flaps 31 and 32 defining a dumbbell-shape opening to the tube. The flaps 31 and 32 deflect the epiglottis during insertion of the airway into the patient but can be deflected by a suction tube, or the like, inserted through the tube.



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Fig.1.

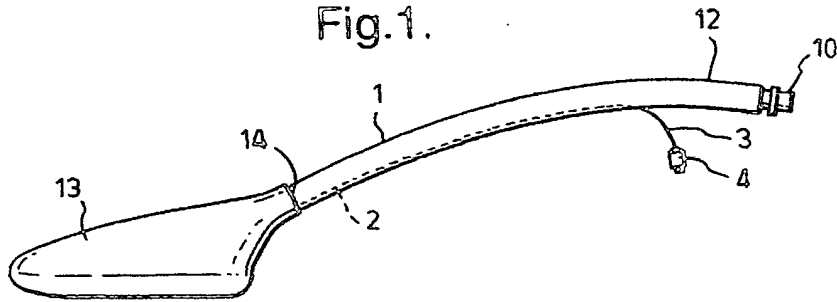


Fig.2.

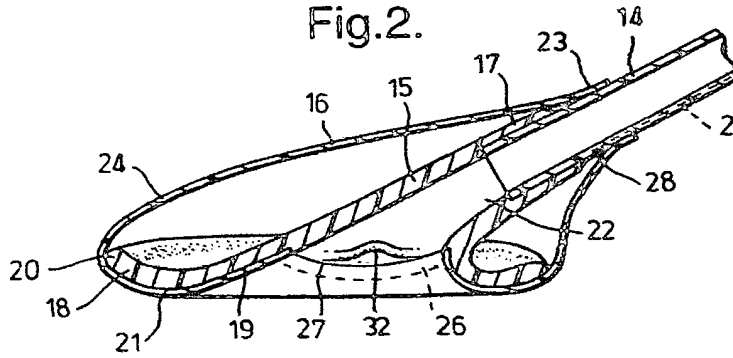
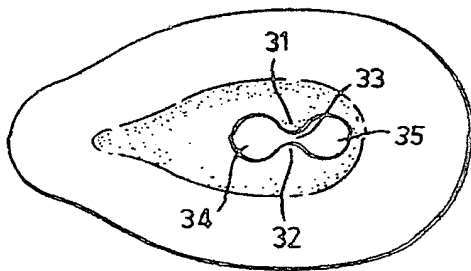


Fig.3.



### Laryngeal Mask Assemblies

This invention relates to laryngeal mask assemblies

It is common practice to use an airway known as a laryngeal mask for the administration of anaesthetic and ventilation gases to a patient. These airways comprise a tube with an inflatable mask or cuff at one end, the tube being inserted in the patient's mouth so that one end is located in the hypopharynx and so that the mask forms a seal in this region with the surrounding tissue. Laryngeal masks are described in, for example, US 5355879, US 5305743, US 5297547, US 5282464, GB 2267034, US 5249571, US 5241956, US 5303697, GB 2249959, GB 2111394, EP 448878, US 4995388, GB 2205499, GB 2128561 and GB 2298797.

Laryngeal masks have several advantages over endotracheal tubes, which are longer and seal with the trachea below the vocal folds. One problem with laryngeal mask airways, however, is that there is a risk that the epiglottis can enter the air passage through the airway during insertion, thereby causing a blockage. In GB-A-2205499 there is described a laryngeal mask having bars extending across the patient-end opening of the tube into the mask, to prevent the epiglottis entering the opening.

It is an object of the present invention to provide an improved laryngeal mask assembly.

According to the present invention there is provided a laryngeal mask assembly comprising a tube with a mask portion at its patient end, the tube having an opening into the centre of the mask portion, the mask portion having at least one flap member projecting laterally across a part only of said opening, so as to deflect the epiglottis away from the

opening during insertion, and the flap member being deflectable by an elongate member inserted along the tube.

The mask portion preferably has two flap members projecting laterally towards one another from opposite sides, both flap members *deflecting the epiglottis away from the* opening and being deflectable by an elongate member inserted along the tube. The flap members may provide a dumbbell shape to the opening. The mask portion may comprise a mount member attached with the tube and a cuff attached with the mount member, the or each flap member being formed from the material of the mount member. The cuff may be a bag-shape member attached with the mount member adjacent the or each flap member.

A laryngeal mask airway assembly according to the present invention, will now be described, by way of example, with reference to the accompanying drawing, in which:

Figure 1 is a side elevation view of the assembly;

Figure 2 is a sectional side elevation view of the patient end of the assembly to an enlarged scale; and

Figure 3 is a view from below of the patient end of the assembly.

The assembly comprises a bendable tube 1 of a plastics material, such as PVC, with a coupling 10 at its machine end 12. The tube 1 is curved along its length and has a mask portion 13 at its patient end 14.

and communicates with the inflation lumen 2 by means of an opening 28 cut through the outer surface of the tube 1 below the point where the bag is attached to the tube.

The mount member 15 also has an epiglottis deflector provided by two flaps 31 and 32, *formed from the material of the mount member*, just behind the hole 27 in the bag 16. The flaps 31 and 32 extend parallel to the plane containing the forward surface 21 of the mount member 15 and project laterally inwardly towards the major axis of the elliptical shape of the end of the mount member. The flaps 31 and 32 are of approximately semicircular shape and, at their closest separation, are spaced by a small gap 33. In this way, the opening into the tube 1 is divided into two pear-shape regions 34 and 35 separated by the gap 33, giving the opening into the bore through the tube a dumbbell or keyhole shape.

The stiffness of the material forming the two flaps 31 and 32 is sufficient to deflect the epiglottis during insertion of the mask assembly, but the flaps bend readily to allow a suction catheter, or the like to be inserted along the tube 1 and project from the mask portion.

CLAIMS

1. A laryngeal mask assembly comprising a tube with a mask portion at its patient end, the tube having an opening into the centre of the mask portion, wherein the mask portion has at least one flap member projecting laterally across a part only of said opening, so as to deflect the epiglottis away from the opening during insertion, and wherein said flap member is deflectable by an elongate member inserted along the tube.
2. A laryngeal mask assembly according to Claim 1, wherein the mask portion has two flap members projecting laterally towards one another from opposite sides, and wherein both said flap members deflect the epiglottis away from the opening and are deflectable by an elongate member inserted along the tube.
3. A laryngeal mask assembly according to Claim 2, wherein said flap members provide a dumbbell shape to said opening.
4. A laryngeal mask assembly according to any one of the preceding claims, wherein said mask portion comprises a mount member attached with said tube and a cuff attached with said mount member, and wherein the or each flap member is formed from the material of said mount member.
5. A laryngeal mask assembly according to Claim 4, wherein the cuff is a bag-shape member attached with said mount member adjacent the or each flap member.

6. A laryngeal mask assembly substantially as hereinbefore described with reference to the accompanying drawing.
7. Any novel and inventive feature as hereinbefore described.

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